



UNITED STATES DEPARTMENT OF COMMERCE  
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
07/317,107	02/28/89	ZIMMERMAN	T 1027411

EXAMINER

TOWNSEND AND TOWNSEND  
STEUART STREET TOWER  
ONE MARKET PLAZA  
SAN FRANCISCO, CA 94105

OBERLEY, A  
ART UNIT PAPER NUMBER

269

DATE MAILED:

06/13/90

### NOTICE OF ALLOWABILITY

#### PART I.

1.  This communication is responsive to the Amendment Filed 1-17-90 + Declaration Filed May 1, 90.  
2.  All the claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.  
3.  The allowed claims are 1 - 25 + 28-68.  
4.  The drawings filed on \_\_\_\_\_ are acceptable.  
5.  Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has [ ] been received. [ ] not been received. [ ] been filed in parent application Serial No. \_\_\_\_\_, filed on \_\_\_\_\_.  
6.  Note the attached Examiner's Amendment.  
7.  Note the attached Examiner Interview Summary Record, PTOL-413.  
8.  Note the attached Examiner's Statement of Reasons for Allowance.  
9.  Note the attached NOTICE OF REFERENCES CITED, PTO-892.  
10.  Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449.

#### PART II.

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

1.  Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.  
2.  APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.  
a.  Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No. 2. CORRECTION IS REQUIRED.  
b.  The proposed drawing correction filed on \_\_\_\_\_ has been approved by the examiner. CORRECTION IS REQUIRED.  
c.  Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS REQUIRED.  
d.  Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

#### Attachments:

- Examiner's Amendment
- Examiner Interview Summary Record, PTOL- 413
- Reasons for Allowance
- Notice of References Cited, PTO-892
- Information Disclosure Citation, PTO-1449
- Notice of Informal Application, PTO-152
- Notice re Patent Drawings, PTO-948
- Listing of Bonded Draftsmen
- Other

Serial No. 317,107

-2-

Art Unit 269

1. The Declarations (two) filed May 1, 1990, (two) filed January 2, 1990, and the Exhibits A-D filed January 24, 1990 filed on the above dates under 37 C.F.R. § 1.131 has been considered as effective to overcome the "virtual Environment Display System" by Fisher et al reference.

2. The above declaration were requested by telephone interviews.

3. The reference cited on the PTO-1449 received Feb. 2, 1990 have been considered. The (AU) reference teaches using a wand as a 3-D input. The (AT) reference is a pointing device to control the screen. The (AS) reference is similar to the Haney patent of record. Likewise the (AR) reference is similar to the Haney reference and suggest moving the animated object about the constraints of the environment but instead of acting upon the environment is used for collision avoidance; page 33.

None of the references of record teach emulating a part of the human on a display that is controlled in response to sensing of the human part to interactively act upon virtual objects on the screen.

4. Any inquiry concerning this communication should be directed to Alvin Oberley at telephone number (703) 557-8607.

A. OBERLEY:rf  
May 8, 1990

  
ALVIN E. OBERLEY  
SUPERVISORY PATENT EXAMINER  
ART UNIT 269



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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\*\*CORRECTED COPY\*\*

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SAN FRANCISCO, CA 94105

**NOTICE OF ALLOWANCE  
AND ISSUE FEE DUE**

Note attached communication from the Examiner

This notice is issued in view of applicant's communication filed \_\_\_\_\_

SERIES CODE/SERIAL NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
07/317,107	02/28/89	066	OBERLEY, A	269 06/13/90
First Named Applicant	ZIMMERMAN, THOMAS G.			

TITLE OF  
INVENTION COMPUTER DATA ENTRY AND MANIPULATION APPARATUS AND METHOD  
(AS AMENDED)

	ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEES DUE	DATE DUE
2	1027411	340-709.000	F29	UTILITY	NO	\$620.00	09/13/90

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT.  
PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS  
APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

I. Review the SMALL ENTITY Status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the Status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the Status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B of this notice should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by a charge to deposit account, Part B should be completed and returned. If you are charging the ISSUE FEE to your deposit account, Part C of this notice should also be completed and returned.

III. All communications regarding this application must give series code (or filing date), serial number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

***IMPORTANT REMINDER: Patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees.***